

1. (Currently Amended) A method for streaming scalable video including base layer data and enhancement layer data, comprising the steps of:

transmitting the base layer data for a given interval within a plurality of time intervals for a single video stream;

determining if a loss of bandwidth has occurred in during the given interval;

selecting a predetermined number of frames to distribute the loss of bandwidth over;

calculating a reduced amount of enhancement layer data to transmit in the predetermined number of frames; and

transmitting the reduced amount of enhancement layer data in during the given interval.

2. (Previously Amended) The method according to claim 1, further comprising:

transmitting non-enhancement layer data during the given interval.

3. (Unchanged/Original) The method according to claim 1, wherein the calculating step is performed

so that the loss of bandwidth is distributed evenly over the predetermined number of frames.

1 4. (Currently Amended) The method according to claim 1, further comprising the steps of:

2 determining if ~~there is still space~~ bandwidth remains in the given interval; and

3 if bandwidth remains in the given interval, transmitting at least a portion of the reduced

4 amount of enhancement layer data from a second given interval in the given interval.

1 5. (Unchanged/Original) The method according to claim 1, further comprising the steps of:

2 determining if the pre-determined number of frames has expired;

3 determining if any left-over enhancement layer data exists;

4 selecting a second predetermined number of frames to distribute the left-over enhancement
5 data over;

6 calculating a second reduced amount of enhancement layer data to transmit in the second
7 predetermined number of frames; and

8 transmitting the second reduced amount of enhancement layer data in a second given interval.

1 6. (Unchanged/Original) The method according to claim 1, wherein the enhancement layer data has
2 a fine grain scalability structure.

1 7. (Currently Amended) A method for streaming scalable video including base layer data and
2 enhancement layer data, comprising the steps of:

3 transmitting the base layer data for a given interval within a sequence of time intervals over
4 which the scalable video is streamed;

5 selecting a predetermined number of frames if a loss of bandwidth has occurred in the given
6 interval;

7 distributing the loss of bandwidth over the predetermined number of frames to produce a
8 reduced amount of enhancement layer data; and

9 transmitting the reduced amount of enhancement layer data in the predetermined number of
10 frames during the given interval.

1 8. (Unchanged/Original) The method according to claim 7, wherein the distributing step is
2 performed so that the loss of bandwidth is distributed evenly over the predetermined number of
3 frames.

1 9. (Currently Amended) A memory medium including code for streaming scalable video including
2 base layer data and enhancement layer data, the code comprising:

3 a first transmitting code to transmit the base layer data for a given interval within a series of
4 time intervals over which the scalable video is transmitted;

5 a determining code to determine, during transmission of the scalable video, if a loss of
6 bandwidth has occurred in the given interval;

7 a selecting code to select a predetermined number of frames to distribute the loss of
8 bandwidth over;

9 a calculating code to calculate a reduced amount of enhancement layer data to transmit in the
10 predetermined number of frames; and

11 a second transmitting code to transmit the reduced amount of enhancement layer data in the
12 given interval;

13 wherein the reduced amount of enhancement layer data transmitted during the given interval
14 varies from a normal amount of enhancement layer data transmitted during other intervals within the
15 series.

1 10. (Currently Amended) An apparatus for streaming scalable video including base layer data and
2 enhancement layer data, comprising:

3 a memory which stores executable code; and

4 a processor which executes code stored in the memory so as to (i) transmit the base layer data

5 for a given interval within a plurality of time intervals over which a scalable video stream is

6 transmitted, (ii) determine if a loss of bandwidth has occurred in the given interval, (iii) select a

7 predetermined number of frames within the given interval over which to distribute the loss of

8 bandwidth ~~over~~, (iv) calculate a reduced amount of enhancement layer data to transmit in the

9 predetermined number of frames to accommodate the loss of bandwidth, and (v) transmit the reduced

10 amount of enhancement layer data in the given interval.

1 11. (Currently Amended) An apparatus for streaming scalable video including base layer data and
2 enhancement layer data, comprising:

3 means for transmitting the base layer data for a given interval within a plurality of time
4 intervals;

5 means for determining, during the given interval, if a loss of bandwidth has occurred in the
6 given interval;

7 means for selecting a predetermined number of frames to distribute the loss of bandwidth
8 over;

9 means for calculating a reduced amount of enhancement layer data to transmit in the
10 predetermined number of frames to accommodate the loss of bandwidth; and

11 means for transmitting the reduced amount of enhancement layer data [in] during a remainder
12 of the given interval.

1 12. (Previously Added) The method according to claim 1, wherein the predetermined number of
2 frames over which the loss of bandwidth is distributed comprises frames within the given interval.

1 13. (Previously Added) The method according to claim 1, wherein the step of calculating a reduced
2 amount of enhancement layer data to transmit in the predetermined number of frames further
3 comprises:

4 calculating an amount of enhancement layer data accommodating the loss of bandwidth
5 during the given interval.

1 14. (Previously Added) The method according to claim 1, wherein the step of determining if a loss
2 of bandwidth has occurred in the given interval further comprises:

3 determining a number of bits during the given interval consumed by transmission of non-
4 enhancement layer data.

1 15. (Previously Added) The method according to claim 1, wherein the step of determining if a loss
2 of bandwidth has occurred in the given interval further comprises:

3 determining a number of bits during the given interval lost due to packet loss, noise, or
4 bandwidth variation.

1 16. (Previously Added) The method according to claim 1, wherein the step of calculating a reduced
2 amount of enhancement layer data to transmit in the predetermined number of frames further
3 comprises:

4 calculating a number of lost bandwidth bits to be allocated to each of the predetermined
5 number of frames.

Please add the following new claims:

1 17. (Newly Added) The method according to claim 1, wherein the step of transmitting the reduced
2 amount of enhancement layer data in the given interval further comprises:

3 transmitting a first reduced amount of enhancement layer data in first and last frames of the
4 predetermined number of frames; and

5 transmitting a second reduced amount of enhancement layer data different from the first
6 amount in a frame between the first and last frames of the predetermined number of frames.

1 18. (Newly Added) The method according to claim 1, wherein the steps of determining if a loss of
2 bandwidth has occurred during the given interval, selecting a predetermined number of frames to
3 distribute the loss of bandwidth over, calculating a reduced amount of enhancement layer data to
4 transmit in the predetermined number of frames, and transmitting the reduced amount of
5 enhancement layer data during the given interval cumulatively result in dynamic adaptation of the
6 scalable video stream to temporary reductions in available bandwidth during transmission of a
7 portion of the scalable video stream.

1 19. (Newly Added) The method according to claim 1, wherein the step of selecting a predetermined
2 number of frames to distribute the loss of bandwidth over further comprises:
3 selecting a predetermined number of remaining frames to be transmitted during the given
4 interval.

1 20. (Newly Added) The method according to claim 1, further comprising:
2 following transmission of the reduced amount of enhancement layer data in the
3 predetermined number of frames, resuming transmission of a non-reduced amount of enhancement
4 layer data in frames subsequent to the predetermined number of frames.